Before the
Federal Communications Commission
Washington, DC

In the Matter of	)	
	)	
Improving Public Safety Communications	)	
in the 800 MHz Band	)	WT Docket No. 02-55
	)	
Consolidating the 900 MHz Industrial/Land	)	
Transportation and Business Pool Channels	)	

Comments of Exelon Corporation

Exelon Corporation ("Exelon") submits these comments in response to the Commission's Notice of Proposed Rule Making in this proceeding.[1]

Exelon supports the comments of the United Telecom Council ("UTC") on the best approach to deal with interference problems experienced by Public Safety and other licensees in the 800 MHz band. In particular, Exelon urges the Commission to reject proposals such as those of Nextel which would involve the forced migration of existing licensees at great cost and with great disruption even though such moves might be neither necessary nor sufficient to eliminate problematic interference. Rather, the Commission should adopt a more "market-based", "specific-incident" approach requiring that interfering parties remedy any problem they create but without dictating the specific solution that should be employed. This would ensure that costs were incurred only in

[1] *In the Matter of Improving Public Safety Communications in the 800 MHz Band, Consolidating the 900 MHz Industrial/Land Transportation and Business Pool Channels*, WT Docket No. 02-55, Notice of Proposed Rule Making, FCC 02-81, released March 15, 2002 ("NPRM").

those cases in which interference actually requires it. In addition, by making the interfering party responsible for the solution, and permitting flexibility in achieving the solution, the costs will appropriately be charged to the cost-causer, with the attendant benefit of providing an incentive for implementing the most effective and cost-efficient solution for each specific case of interference.

Finally, Exelon supports the petition of the Personal Communications Industry Association ("PCIA") to combine the Business and Industrial/Land Transportation ("B/ILT") pools in the 800 MHz and 900 MHz bands, provided that proliferation of cellularized systems is not permitted beyond current pool limits. In addition, the Commission should also lift the freeze on intercategory sharing in the 800 MHz band. These changes will permit parties to employ arrangements that make efficient use of spectrum that is in short supply.

I. Introduction

Exelon, through several of its subsidiaries, provides critical infrastructure services to many customers in this country. PECO Energy Company ("PECO") serves about 1.5 million electricity and 430,000 natural gas customers in Southeastern Pennsylvania (including Philadelphia). Commonwealth Edison serves more than 3.4 million electricity customers in Northern Illinois (including Chicago). Exelon Generation manages a diverse portfolio of natural gas, coal, hydro, nuclear, solar and wind generated electricity. It owns and operates a substantial number of hydro- and fossil-powered electrical generating units, as well as the largest nuclear "fleet" in the nation – the third largest fleet in the world. Its ten nuclear stations – with 17 reactors – represent approximately 20 percent of the U.S. nuclear industry's power capacity.

Each of these companies uses radio communications in a number of critical functions. PECO, in particular, is potentially affected by this proceeding because it currently operates 14 channel pairs in the General Category segment (channels 1-150) of the 800 MHz band and 19 channel pairs in the Industrial/Land Transportation Pool in the interleaved channel segment (channels 151-400) of that band. These frequencies are used for radio services to further the safe and efficient distribution of electricity and gas. PECO's 800 MHz two-way radio systems are used for voice dispatch to support field line crews and field service personnel for construction, customer response, repair, and emergency preparedness and storm restoration functions.[2] With respect to this proceeding, PECO would be significantly and negatively affected by, for example, Nextel's proposal, which would result in the uncompensated relocation of its General Category and Industrial/Land Transportation ("ILT") licensees from the 800 MHz band to the 900 MHz band.[3]

Exelon supports the comments of the UTC in this proceeding – especially in its focus on technical and "market-based" approaches targeted at the resolution of the interference problems of Public Safety and other licensees in the 800 MHz band.

II. The Commission should eschew the massive disruption and cost associated with rebanding and, instead, promote a targeted, more effective and cost-efficient resolution of the interference problems in the 800 MHz band.

The forced relocation of incumbent licensees associated with "rebanding" the 800 MHz band would provide no guarantee of resolving even the most significant

---

[2] The importance of the use of radio services for emergency communications by key infrastructure providers cannot be over-emphasized. *See, e.g.*, THE ADVISORY PANEL TO ASSESS DOMESTIC RESPONSE CAPABILITIES FOR TERRORISM INVOLVING WEAPONS OF MASS DESTRUCTION ("GILMORE COMMISSION"), THIRD ANNUAL REPORT TO THE PRESIDENT AND CONGRESS, at D-3, H-5, M-1, (2001) ("Gilmore Commission Third Report").

[3] See discussion, *infra*.

interference problems experienced by public safety agencies and other licensees. In fact, such a costly and disruptive relocation might even result in new interference patterns. As the Commission itself noted:

> It is not intuitively obvious that either Nextel's or NAM's proposed reconfiguration of the 800 MHz band would significantly reduce intermodulation interference.[4]

Thus, it is altogether likely that it would still to be necessary to explore technical solutions to interference problems experienced by public safety agencies and other 800 MHz licensees even after a completing an onerous and expensive rebanding. Given this, it is imperative to first exhaust other less costly, less disruptive, and more effective remedial measures.

For example, Exelon concurs with the letter of Aeronautical Radio, Inc. ("ARINC"), UTC, and others[5] concerning the high costs associated with the dislocation proposed by Nextel. Specifically, moving PECO's General Category and ILT 800 MHz licenses to the 900 MHz band would likely cost PECO more than $30 million – including $20 million in equipment replacement costs.[6] Contrary to Nextel's speculation that the move could be accommodated by simply "retuning" equipment, PECO would be required to purchase completely new systems because its current equipment is not "dual-band".

Moreover, mandated migration of existing systems to new frequencies could result in gaps in communications systems at critical moments. Such "glitches" have been discovered and remedied in systems that have been in place for years. Similar characteristics of new systems at new frequencies might not be discovered until an

---

[4] NPRM at ¶27.
[5] See NPRM at note 117.
[6] Moving to different channels within the 800 MHz band would still cause PECO approximately $1.5 million.

inopportune moment, when some emergency could least tolerate the problem. In an era of enhanced security needs for all critical infrastructure, a risk of breakdowns in essential communications systems can be ill-afforded.[7] Moreover, the above cost estimates do not include specific costs associated with the addition of new relay sites and equipment that might be necessary to correct such coverage gaps.

In addition, moving PECO's 800 MHz frequencies to narrower 12.5 MHz channels in the 900 MHz band would have a severe impact on PECO's mobile data operations, which are used, *inter alia*, to dispatch gas emergency crews. On the narrower channels, the data transmission speed would be cut in half from 9600 bps to 4800 bps, which could result in bottlenecks on the data radio system that could affect emergency services.

Any suggestion by Nextel that such a relocation would not be "required" but only be "voluntary" under its proposal must be rejected. On the contrary, although it is not altogether clear, it would appear that Nextel's proposal would compel General Category licensees to vacate their frequencies entirely in order to make room for Public Safety licensees relocating from the National Public Safety Planning Advisory Committee ("NPSPAC") segment.

Moreover, although Nextel's proposal would permit the B/ILT licensees to remain where they are on a secondary basis, such an option is not viable for a critical infrastructure service provider such as PECO. As the Commission itself indicates, a key concern exists about whether it would be advisable to require a station associated with the restoration of electrical service to "precipitously discontinue service" as a "secondary"

[7] Gilmore Commission Third Report at H-5.

licensee.[8] Traditional utility 800 MHz radio systems have operated for years without causing significant interference to Public Safety licensees. Nonetheless, Nextel's proposal would allow Public Safety licensees to "bump" B/ILT licensees from current frequencies – a situation that is at odds with the paramount need of critical infrastructure service providers, such as utilities, for advance planning and system enhancement to help ensure safe and reliable service.

Therefore, since the uncertainties associated with "secondary" status for utility radio users would likely be unacceptable to a responsible provider of critical infrastructure services, PECO's relocation to the 900 MHz band would effectively become mandatory under Nextel's plan, not voluntary.

However, as noted above, forced migration of utilities' communications services to other frequencies raises the risk of the occurrence of unpredicted communications failures, which could, in turn, create additional risk to the prompt restoration of electric power and other critical services in emergency situations. Given the availability of a more effective solution (discussed in greater detail below), there are simply no good reasons for society to assume these additional risks.

In addition, Nextel's proposal is particularly inequitable in other respects. Although Nextel offers to give up its spectrum in the interleaved segment of the 800 MHz band, the amount of contiguous spectrum it expects in return is of much greater commercial value. And, although it offers to pay $500 million toward the relocation of Public Safety licensees, it is likely that that would be only a fraction of the required nationwide costs. To offset the shortfall, Nextel not only seeks contribution from other cellular licensees, but also suggests that, in addition to paying the cost of their own

[8] NPRM at ¶34.

relocation to the 900 MHz band, B/ILT licensees should also contribute to Public Safety licensees' costs because B/ILT licensees will have "benefited" from their own move to the 900 MHz band since they would then have spectrum free of interference. This flawed argument ignores the critical fact that Nextel itself causes the primary interference necessitating any such purportedly "beneficial" move. Nextel's ill-conceived proposal that the victims of interference, not the interfering party, should bear the costs of any required remedy because the remedy will benefit them is analogous to saying that a party causing an automobile accident should not be responsible for the cost of repairing the victim's damaged car since the victim would benefit from having an undamaged vehicle. That, of course, simply makes no sense.

In the alternative, Exelon suggest that, rather than forcibly moving any 800 MHz band licensee (or downgrading its status to "secondary" as proposed by Nextel for the B/ILT segment), the Commission should adopt a "market-based", "specific-incident" approach to enable the most cost-effective, targeted solution to the interference problem experienced by Public Safety and other licensees in that band.

An example of such an approach would involve modification of the Commission's rules specifically to impose technical and financial responsibility on the interfering party for resolving any interference problem arising from its operations in the 800 MHz band. For example, in the event that PECO's use of its ILT frequencies were to cause interference to a local police department's use of public safety radio, PECO should be required to resolve that problem at its own expense. All licensees would be required to cooperate in identifying the source of any interference. The interfering party (in this case, PECO) then would have to resolve the interference problem within 60 days of

receiving a verified report by a certified engineer identifying it as the cause of the interference. If a resolution were not achieved within that time frame, the interfering party would have to cease operations unless an extension of time were agreed to by all affected parties. No specific type of resolution would be required. Technical solutions would be encouraged. The interfering party, for example, could modify its equipment or pay to modify the equipment of the parties experiencing interference. Exelon submits that this market-based and incident-specific approach better serves the public interest than would a broad-scale rebanding approach, however well-intentioned.

This targeted, market-based solution would also involve mitigating pool restrictions that currently prohibit channel swaps that could result in a significant reduction in interference. For example, an Economic Area-Specialized Mobile Radio ("EA-SMR") licensee should be permitted to switch its channels in the interleaved segment with a Public Safety licensee's channels in the NPSPAC segment if the parties so agree. This would encourage EA-SMR licensees to negotiate their way out of the interleaved channel segment where they are causing adjacent-channel interference and into a segment in which they can likely acquire a number of contiguous channels to benefit their operations.

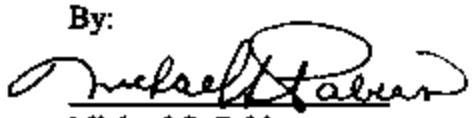
This approach, which fairly and reasonably places the burden on the interfering party to eliminate the interference without dictating how that would be achieved, does not require the burdensome and costly massive moves associated with rebanding, moves which may not even be necessary in areas where no interference exists and which, under any circumstance, might not even eliminate the interference. Rather, this targeted, cost-efficient approach is a conservative one – focusing on the problem (interference), placing

the cost and the incentive for fixing the problem, on the cost-causer, and then letting the market work to determine the most effective and cost-efficient solution.

III. The Commission should adopt both of PCIA's proposals to promote the efficient use of spectrum in the 800 and 900 MHz bands.

In the NPRM, the Commission seeks comment on PCIA's petition for rule making asking the Commission to consolidate the Business and Industrial/Land Transportation pools in the 800 and 900 MHz band or, in the alternative, lift the current freeze on intercategory sharing.[9] Exelon recommends that the Commission do both – combine the Business and the Industrial/Land Transportation pools and permit new intercategory sharing – with one restriction. Cellularized systems, which are heavy frequency users and the biggest cause of adjacent-channel interference, must be prohibited in the expanded pools. This will have the effect of making more channels available to all potential users as well promoting spectrum-efficient usage through mutually-beneficial sharing arrangements while at the same time protecting against a proliferation of the interference problem experienced by B/ILT licensees today.

Respectfully submitted
Exelon Corporation
By:



Michael S. Pabian
Assistant General Counsel
Exelon Corporation
10 South Dearborn Street, 35th Floor
Chicago, IL 60603
(312)394-5381
michael.pabian@exeloncorp.com

Dated: May 6, 2002

[9] *Id.* at ¶¶83-85.